



ELAN

Labour Time Schedule

90 M.Y. onwards

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D	Rear Suspension
E	Engine
EM	Engine Management
F	Transaxle
G	Wheels & Hubs
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J	Brakes

K	Cooling
L	Fuel
M	Electrical
O	Maintenance
P	Heating & A.C.U.
Q	Clutch
R	Drive Shafts
S	Exhaust

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C100T0328J

FOREWORD

This labour time schedule is compiled to assist Lotus dealers when submitting warranty claims, and estimating job times. The manual is arranged in sections in common with the Service Notes manuals, and lists major operations against an operation number and labour time.

Operation Number

Each operation is allocated a section letter and reference number, e.g. C100 which must be quoted on any warranty claim. If an operation is performed which is not listed specifically under the description column, the warranty claim should be completed using: an effective description of the fault and work done; the time taken for the job; 'none' written in the operation number box.

Labour Time

The listed labour times are those required to perform the stated tasks using procedures specified in the Service Notes manual having due regard to required levels of skill, availability of tools and equipment, working conditions and personal needs. The times are those attainable by a suitably qualified service technician working at normal speed. Times are quoted in hours and tenths of hours (i.e. 6 minute intervals); 1.6 = 1hr 36min.

Unlisted Operations: If an operation performed is not listed in the schedule, the actual time taken for the job should be stated with a 'TT' (time taken) suffix.

Combined Operations: Unless otherwise stated, each operation is a complete job from start to finish. If a job includes several listed operations, where an element of the quoted time is common to two or more of the operations, the total time will be less than the sum of all the individual listed times. In this case, a claim should be submitted for the major operation, together with further claim(s) for any further work, with the additional time taken quoted with a 'TT' (time taken) suffix.

Special Circumstances: If a job takes significantly longer than the labour time specified due to particular circumstances, e.g. broken or corroded fixings, a 'TT' time should be entered together with an explanation of the circumstances.

Diagnosis & Testing: Diagnosis and testing both before and after an operation should normally be considered an operating expense.

Suggested Labour Time Amendments

Included at the back of this schedule are a number of forms which should be used to advise Warranty of any times which are felt to be either too short or long. When completing this form, please describe the sequence of operation followed in detail if different from that in the Service Notes, and include any other information that may be useful in the analysis of the request.

Glossary of Terms

- 'Check' To inspect and/or measure to establish if adjustment or replacement is necessary.
- 'Adjust' To adjust to correct specification.
- 'Replace' To replace a component or assembly with a new component or assembly, including transfer of components to new assembly and making all necessary adjustments.
- 'R & R' To remove and reinstall a component or assembly for purposes of inspection, or access to other parts, and make all associated adjustments.
- 'Overhaul' To remove, dismantle, inspect and recondition, reassemble and reinstall, making all necessary adjustments.
- 'Install' To make an initial installation of a component or assembly

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B-Body

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Chassis	Replace	B100	57.5				
Door	RR	B102	1.5				
	Adjust	B102	0.6				
	Replace	B103	4.0				
Door Mirror	Replace	B104	0.3				
Door Lock Exterior Handle	Replace	B106	0.1				
Door Lock Barrel	Replace	B107	0.7				
Door Lock Interior Handle	Replace	B108	0.5				
Central Door Locking Actuator	Replace	B109	2.1				
Door Hinge (One Door)	Replace	B110	0.5				
Door Glass	Replace	B111	2.5				
	RR	B112	1.3				
Door Glass	Adjust	B113	0.8				
Door Glass Seals, Weather Inner	Replace	B114	0.5				
Door Glass Seals, Weather (Includes B117) Outer	Replace	B115	1.5				
Door Primary Seal	Replace	B116	1.6				
Door Trim Panel	RR	B117	0.4				
Topshell	Replace	B118	5.0				
	RR	B119	2.0				
'A' Panel	Replace	B120	0.4				
'A' Post Trim Cover	Replace	B121	0.3				
'A' Pillar Weather Seal	Replace	B122	1.5				
Single Pivot Headlamps			See Section M				
Windscreen	Replace	B123	4.0				

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Fuel Filler Seal (Both)	Replace	B124	0.2				
Fuel Filler Flap	Replace	B125	0.3				
Fuel Filler Flap Cable	Replace	B126	0.3				
Wheelarch Liner Front (Each)	RR	B127	0.4				
Bonnet	Replace	B128	1.1				
	RR	B129	0.7				
Bonnet Release Cable	Replace	B131	1.2				
Bonnet Hinges (One)	Replace	B134	0.2				
Boot Catch (Locking Barrel)	Replace	B135	0.2				
Boot Lid	Replace	B137	0.9				
Boot Lid Spoiler	Replace	B139	1.0				
Front Spoiler	Replace	B141	0.7				
Front Bumper	Replace	B142	2.5				
Rear Bumper	Replace	B143	1.3				
Boot Seal	Replace	B144	0.1				
Boot Hinges (One)	Replace	B145	0.5				
Mirror Interior	Replace	B146	0.1				
Centre Tunnel Console	Replace	B147	0.5				
Seat Cover Back	Replace	B180	1.5				
Seat Cover Base	Replace	B181	1.0				
Knee Bolster	Repalce	B182	0.5				
Windscreen Header Rail Trim Panel	Replace	B183	0.3				

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Sill Tread Plates	Replace	B148	0.3				
'B' Post Trim Panels	Replace	B149	0.3				
Speaker Boxes	Replace	B151	0.2				
Sunvisor	Replace	B152	0.3				
Finisher Windscreen Top	Replace	B153	0.8				
Stowage Lid	Replace	B154	0.8				
Stowage Lid Seal	Replace	B156	1.8				
Stowage Lid Release Cable	Replace	B158	0.5				
Roof Stowage Shelf and Side Panels	RR	B160	0.4				
Seat	Replace	B161	0.2				
Safety Belt	Replace	B162	0.7				
Glove Box	Replace	B163	0.3				
Glove Box Catch	Replace	B164	0.1				
Fascia Mask	Replace	B166	2.2				
	RR	B167	1.0				
Dash Board	Replace	B168	4.5				
Floor Carpet (1 Side)	RR	B169	1.2				
Floor Carpet LH & RH	RR	B170	2.0				
Soft Top	Replace	B171	4.0				
	Adjust	B172	1.0				
Water Test		B173	0.3				
Header Seal	Replace	B174	4.0				
	Adjust	B175	0.3				
Intermediate Seal	Replace	B176	1.2				
	Adjust	B177	0.3				
Falling Pillar 'B' Post Seal	Replace	B178	1.5				
	Adjust	B179	0.3				
'A' Pillar Weather Seal		See B122					

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C - Front Suspension

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Front Damper Assy	Replace	C100	0.8				
Spring Removal From Damper	Replace	C101	0.3				
Top Wishbone (Alignment not Included)	RR	C102	0.5				
Lower Wishbone	RR	C103	1.4				
Lower Wishbone Bush Add to C103	Replace	C104	0.2				
Top Wishbone Bush Add to C102	Replace	C105	0.2				
Wheel Bearing	Replace	C106	2.0				
Anti Roll Bar	Replace	C107	0.3				
Anti Roll Bar Ball Joint	Replace	C108	0.3				
Anti Roll Bar Drop Link	Replace	C109	0.2				
Top Ball Joint (Alignment not Included)	Replace	C110	0.5				
Lower Ball Joint	Replace	C111	1.2				
Geometry Check		C112	1.0				
Adjustments	Castor	C113	0.3				
	Camber	C114	0.5				
	Toe	C115	0.2				
Raft	Replace	C116	3.0				

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D - Rear Suspension

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Rear Damper Assembly	Replace	D100	0.6				
Spring Removal from Damper	Replace	D101	0.3				
Top Link (Alignment not included)	RR	D102	0.2				
Top Link Bush Add to D102	Replace	D103	0.2				
Lower Wishbone (Alignment not included)	RR	D104	0.3				
Lower Wishbone Bush (Each) Add to D104	Replace	D105	0.2				
Anti Roll Bar	RR	D106	0.3				
Anti Roll Bar Bush Add to D106	Replace	D107	0.2				
Anti Roll Bar Drop Link	Replace	D108	0.2				
Wheel Bearing	Replace	D109	0.8				
Hub Carrier	Replace	D111	1.0				
Stub Axle Add to D109	Replace	D112	0.1				
Geometry Check		C112	1.0				
Adjustments Camber	Adjust		0.2				
	Toe		0.2				

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E - Engine

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Head Gasket	Replace	E100	8.0				
Cam Belt	Replace	E101	3.5				
Camshaft Removal (One) (Two)	R & R	E102	3.2				
	R & R	E103	3.8				
Camshaft Oil Seal	Replace	E104	2.2				
Crankshaft Oil Seal	Replace	E105	4.0				
Water Pump	Replace	E106	4.4				
Oil Sump	Replace	E107	1.4				
Engine	Replace	E108	9.0				
	R & R	E109	7.0				
Piston	Replace	E110	15.0				
Cylinder Head Cam Plug	Replace	E111	0.5				

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EM - Engine Management

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Tech 1 Diagnostic		EM100	0.2				
Tech 1 Diagnostic with Road Test		EM101	0.5				
Operations listed below do not include Tech 1 Diagnostic							
Oxygen Sensor	Replace	EM102	0.3				
MAT Sensor	Replace	EM103	0.2				
MAP Sensor	Replace	EM104	0.4				
Throttle Position Sensor	Replace	EM105	0.3				
Coolant Temperature Sensor	Replace	EM106	0.4				
Vehicle Speed Sensor	Replace	EM107	0.2				
Knock Sensor	Replace	EM108	1.8				
Idle Air Control Valve	Replace	EM109	0.7				
EGR Solenoid Valve	Replace	EM110	0.2				
ECM (Incl. checking wiring connections)	Replace	EM111	1.0				
Coil Pack	Replace	EM112	1.0				
Cam Angle Sensor (Incl. retiming ignition)	Replace	EM113	0.5				

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F - Transaxle

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Gearbox	Replace	F100	3.5				
Gearbox (With Engine Out)	Replace	F102	0.2				
Gear Lever Assembly	Replace	F103	1.2				
Gear Selection Cable (One)	Replace	F104	1.5				
Gear Selection Cable (Both)	Replace	F105	2.5				
	Adjust	F106	0.2				
Speedo Drive	Replace	F107	1.0				
Reverse Light Switch	Replace	F108	0.2				
Drive Shaft Oil Seal LH (Includes Replacing Circlip)	Replace	F109	1.3				
Drive Shaft Oil Seal RH (Includes Replacing Circlip)	Replace	F110	1.5				

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G - Wheels & Hubs

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H - Steering

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Steering Wheel	Replace	H100	0.6				
Steering Column	Replace	H101	1.0				
Intermediate Column	Replace	H102	1.5				
P.A.S. Rack Assembly	Replace	H103	4.5				
P.A.S. Pressure Switch	Replace	H104	0.8				
P.A.S. Pump - with AC without AC	Replace	H105	2.5				
	Replace	H106	1.8				
P.A.S. Fluid	Replace	H107	0.5				
P.A.S. Fluid Reservoir	Replace	H108	0.8				
Manual Rack Assembly	Replace	H109	3.5				
Rack Gaiter (One)	Replace	H110	0.8				
Track Rod End (One) Includes Adjust Track	Replace	H111	0.6				
Driveshaft PAS Pump	Replace	H112	0.5				

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J - Brakes

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Brake Bleed (all)		J100	0.5				
Front Pads	Replace	J101	0.4				
Rear Pads	Replace	J102	0.5				
Proportioning Valve Includes Bleeding	Replace	J103	0.5				
Handbrake	Replace	J104	0.6				
Handbrake Cable (One)	Replace	J105	0.5				
(Two)	Replace	J106	0.6				
Front Caliper includes bleeding	Replace	J107	0.7				
Rear Caliper includes bleeding	Replace	J108	0.7				
Front Brake Discs (One)	Replace	J109	0.5				
Rear Brake Discs (One)	Replace	J110	0.8				
Brake Servo Unit Includes Bleeding	Replace	J111	4.6				
Master Cylinder Includes Bleeding	Replace	J112	1.5				
Stop Lamp Switch	Replace	J114	0.2				
Front Flexible Hose (one) Includes Bleeding	Replace	J115	0.6				
Rear Flexible Hose (one) Includes Bleeding	Replace	J116	0.6				
Pedal Box	Replace	J117	3.5				

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Labour Time Schedule

ELAN

K - Cooling

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Radiator without A/C	Replace	K100	1.5				
Radiator with A/C	Replace	K101	1.6				
Radiator fan	Replace	K103	0.5				
Cooling System	Drain & Refill	K104	0.4				
Top Hose	Replace	K105	0.3				
Bottom Hose	Replace	K106	0.4				
Heater Hose	Replace	K107	0.2				
Recirc. Pump	Replace	K108	0.3				
Recirc. Pump Hose	Replace	K109	0.2				
Header Tank	Replace	K110	0.2				
Thermostat	Replace	K111	0.5				
Oil Cooler	Replace	K112	1.1				
Oil Cooler Hose (One) (Two)	Replace	K113	1.2				
	Replace	K114	1.3				
Intercooler Radiator	Replace	K115	0.8				
Inter Cooler Hose (Plenum to Wing)	Replace	K116	0.2				
Inter Cooling (Steel Pipe)	Replace	K117	0.6				
Inter Cooler (Turbo to Chargecooler)	Replace	K118	0.3				
Water Pump		E106	4.4				

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ELAN

L - Fuel

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Fuel Tank	Replace	L100	2.5				
Fuel Pump Assy	Replace	L101	1.5				
Fuel Filter	Replace	L102	0.6				
Fuel Filler Neck	Replace	L103	0.6				
Fuel Filler Flap	Replace	B125	0.3				
Fuel Filler Release Lever	Replace	B126	0.3				
Fuel Gauge	Replace	L104	0.6				
Throttle Cable	Replace	L105	0.5				
Fuel Rail Assy	Replace	L106	1.5				
Fuel Tank Sender Unit	Replace	L107	1.5				

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M - Electrical

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Starter Motor	Replace	M100	1.3				
Alternator	Replace	M101	1.7				
Battery	Replace	M102	0.3				
Speedometer	Replace	M103	0.6				
Tachometer	Replace	M104	0.6				
Fuel Gauge	Replace	M105	0.6				
Oil Pressure Gauge	Replace	M106	0.4				
Oil Pressure Switch	Replace	M107	1.8				
Boost Gauge	Replace	M108	0.4				
Battery Condition Gauge	Replace	M109	0.4				
Clock Analogue	Replace	M110	0.3				
Clock Digital	Replace	M111	0.4				
Warning Lights	Replace	M112	0.9				
Ignition Switch	Replace	M113	1.0				
Radio	Replace	M114	0.3				
Aerial	Replace	M115	0.5				
Front speaker (One)	Replace	M116	0.7				
Rear Speaker (One)	Replace	M117	0.4				
Switch Inertia	Replace	M118	0.6				
Switch Wipers	Replace	M119	0.5				
Switch Indicators	Replace	M120	0.5				
Switch Hazard Lights	Replace	M121	0.2				
Switch Exterior Mirrors	Replace	M122	0.2				
Switch Fog Lamps	Replace	M123	0.2				
Switch, Panel Lights Rheostat	Replace	M124	0.3				
Switch Air Con	Replace	M125	0.2				
Switch Headlamps	Replace	M126	1.4				
Switch Window Lift	Replace	M127	0.2				

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Cigar Lighter	Replace	M128	1.4				
Window Lift Motor	Replace	M129	1.2				
Horns	Replace	M130	0.7				
Horn Push Assy.	Replace	M131	0.2				
Interior Lamp (Mirror)	Replace	M132	0.4				
Central Door Locking Module	Replace	M133	0.7				
CDL Door Actuator	Replace	M134	2.1				
Wiper Motor Assy	Replace	M135	1.2				
Screen Wash Reservoir	Replace	M136	0.5				
Headlamp Motor	Replace	M137	0.5				
Headlamp Glass Dip (Includes Beam Reset)	Replace	M138	0.6				
Main (Includes Beam Reset)	Replace	M139	0.5				
Headlamp Bulb	Replace	M140	0.2				
Front Side/Indicator Assy	Replace	M141	1.6				
Rear Lamp Assy	Replace	M142	0.3				
Side Marker	Replace	M143	0.6				
Drive Belt Alternator	Replace	M144	0.7				
Centre High Mounted Stop Lamp (CHMSL)	Replace	M145	1.0				
CHMSL Bulb	Repalce	M146	0.5				
OPS. BELOW DO NOT INCLUDE TECH 1 DIAGNOSIS							
Front S.I.R. Sensor	Replace	M147	0.4				
Passenger S.I.R. Sensor	Repalce	M148	1.2				
S.I.R. Arming Sensor	Repalce	M149	1.2				
S.I.R. DERM (Computer)	Replace	M150	1.2				
Crank or Run Fuse	Replace	M151	0.3				
Rotary Conector	Replace	M152	0.9				
Inflator Module	Replace	M153	0.3				
Column Load Tool (Diagnostic)		M154	0.3				

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O - Maintenance

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
P.D.I.		-	2.5				
After Sales Service		-	1.0				
'A' Service		-	1.8				
'B' Service		-	3.5				
'C' Service		-	3.8				
12 Month Time Period Service		-	2.5				
Wheel Balance (Off Car)		-	0.3				
Bonnet Release Cable	Adjust	-	0.2				
Boot Catch	Adjust	-	0.2				
Boot Lid	Adjust	-	0.2				
Hood Stowage Lid	Adjust	-	0.5				
Release Cable, Hood Stowage Lid	Adjust	-	0.2				
Glove Box	Adjust	-	0.2				
Handbrake	Adjust	-	0.4				
Stop Light Switch	Adjust	-	0.2				
Clutch Cable	Adjust	-	0.2				
Dinol Retreatment		-	1.0				

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P - Heating & A.C.U.

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DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Compressor (Includes Recharge)	Replace	P100	2.2				
Charge System		P102	0.8				
Receiver Drier (Includes Recharge)	Replace	P103	1.3				
Trianry Switch	Replace	P104	0.2				
Condenser (Includes Recharge)	Replace	P105	2.8				
Drive Belt Compressor/PAS	Replace	P106	0.5				
Blower Motor	Replace	P107	1.8				
Rotary Heater Control	Replace	P108	2.5				

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Q - Clutch

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R - Drive Shafts

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S - Exhaust

DESCRIPTION OF OPERATION	MODEL Elan	OP. NO.	VARIANT				
			91 MY				
Exhaust Manifold	Replace	S100	6.0				
Turbocharger	Replace	S101	4.5				
Wastegate Manifold	Replace	S102	3.2				
Converter Manifold	Replace	S103	2.5				
Exhaust Downpipe	Replace	S104	0.5				
Intermediate Pipe	Replace	S105	0.6				
Exhaust Silencer	Replace	S106	0.5				
Ex. Downpipe Support Bracket	Replace	S107	0.3				
Complete Exhaust System (Less Downpipe)	Replace	S108	0.8				
Mounting Rubbers - Front	Replace	S109	0.2				
- Rear	Replace	S110	0.3				
Downpipe Sealing Ring	Replace	S111	0.3				
Main Catalytic Converter	Replace	S112	0.6				

SUGGESTED LABOUR TIME AMENDMENT

Operation No: Model: Series/Model Year:

Description of Work Performed:

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Other Comments:

Existing Labour Time: Suggested Labour Time:

Dealer Stamp: Dealer Signature:

Date:

Operation No: Model: Series/Model Year:

Description of Work Performed:

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Other Comments:

Existing Labour Time: Suggested Labour Time:

Dealer Stamp: Dealer Signature:

Date:

Return to: Warranty Dept., Lotus Cars Ltd., Hethel, Norwich, Norfolk. NR14 8EZ.